

invention, the placement adapts to changes made to the netlist (e.g., creation, addition, modification, and deletion of nets and/or cells)".

IN THE CLAIMS

Please amend the following claims as indicated below:

B1 1. (Twice Amended) In the design of integrated circuits, a computer controlled method for placing cells, comprised of the computer implemented steps of:

- a) generating a netlist through a synthesis process;
- b) executing a cell separation process according to the netlist, wherein cells are placed at locations;
- c) changing the netlist;
- d) modifying spacings of the cells responsive to changes made to the netlist, wherein [the] a placement[s] of the cells are changed according to the changes made to the netlist;
- e) partitioning the cells into a plurality of partitions;
- f) changing the placement[s] of the cells [when] after a [new] partition is created;
- g) determining whether the [partitions have] placement has converged, wherein steps c-f are repeated if convergence is not yet achieved and steps b-g are performed as part of a rough placement process.

B2 10. (Twice Amended) A computer system including a processor coupled to a bus and a memory coupled to the bus, [the system programmed to include a rough placement logic for placing cells of an integrated circuit design represented as a

netlist having cells and connections between the cells, the rough placement logic] comprising:

a rough placement logic for placing cells of an integrated circuit design represented as a netlist having cells and connections between the cells;

a cell separator for assigning initial locations to each of the cells of the netlist;

a synthesis tool for changing the netlist in response to cell location information, wherein an area in which cells are allowed to be placed within is scaled in response to changes made to the netlist;

[a spacer for changing partitions, wherein changes to the partitions result in corresponding changes to locations of where the cells are placed;]

a partitioner for partitioning the cells into a plurality of separate partitions, wherein cells are placed at different locations when a new partition is created;

a spacer for changing the partitions, wherein changes to the partitions result in corresponding changes to locations of where the cells are placed;

a comparator for determining [whether the partitions have converged]  
convergence is achieved.

Please cancel Claims 15-17 without prejudice.

Please add the following new claim:

--18. (New) A computer-readable medium having stored thereon instructions for causing a computer to implement a placement process comprising the steps of:

- a) generating a netlist through a synthesis process;
- b) executing a cell separation process according to the netlist, wherein cells are placed at locations;

c) changing the netlist;  
d) modifying spacings of the cells responsive to changes made to the netlist, wherein a placement of the cells are changed according to the changes made to the netlist;  
e) partitioning the cells into a plurality of partitions;  
f) changing the placement of the cells after a partition is created;  
g) determining whether the placement has converged, wherein steps c-f are repeated if convergence is not yet achieved and steps b-g are performed as part of a rough placement process.

19. (New) The computer-readable medium of Claim 18, wherein the placement process further comprises the step of changing a size of a total area in which cells may reside in response to changes made to the netlist.

20. (New) The computer-readable medium of Claim 18, wherein the placement process further comprises the step of inputting HDL, user constraints, and technology data into the synthesis process for generating the netlist.

21. (New) The computer-readable medium of Claim 18, wherein the netlist is comprised of a mapped netlist.--